Chapter 2 – How Is Procuring Information Technology Different?

Chapter highlights

- **Purpose**: This chapter provides discussion of how the acquisition of information technology (IT) goods and services is different than non-IT commodities and provides guidance on the IT procurement process.

- **Key points:**
  - Due to the nature and complexity of IT products and services, a growing dependence on these IT products and the fast-changing IT markets, IT sourcing is a constantly changing area and requires the application of specialized best practices.
  - The Commonwealth is committed to using technology procurement business processes, supported by the Virginia Public Procurement Act, and based on industry best practices.
  - Technology risks, if not considered, analyzed and mitigated prior to contract execution, could affect many Commonwealth services or severely hamper business continuity and efficiency.
  - Applying strategies and principles to technology procurement, positions the Commonwealth to maximize the benefits it receives from technology and reduces the risk of supplier and technology failures.

Table of contents

2.0 Introduction

Information technology (IT) sourcing and contracting principles share many best practices with other sourcing categories. However, due to the nature and increasing complexity of IT products and services as well as the Commonwealth's growing dependence on IT and fast-changing IT markets, IT sourcing is a constantly changing area and requires the application of specialized best practices.

This chapter focuses on how technology acquisition is different from other types of commodity sourcing. This chapter also provides guidance on why IT procurements require special attention and specialized best practices to obtain best-value IT solutions for the Commonwealth. IT differs in complexity and analysis from other procurements. Commodity-driven goods, like office supplies or road salt, are not constantly changing due to technical improvements, usually do not have complex interdependencies or serious risk considerations and do not support the operational backbone of public safety and citizen services offered by the Commonwealth.

The Commonwealth is committed to using technology procurement processes supported by the Virginia Public Procurement Act and based on industry best practices. These IT

procurement business processes, if used consistently, will enable the Commonwealth to achieve an IT sourcing environment which:

- leverages Virginia's ample IT buying power, which can amount to almost $1 billion annually.
- enables the procurement of innovative IT tools and solutions at competitive prices.
- promotes the increased use and usefulness of statewide technology contracts.
- provides fast and flexible sourcing processes.
- drives positive business relationships between the Commonwealth and its IT suppliers.
- promotes an evaluation process for IT goods and services which is value-oriented, not price-oriented.
- encourages sourcing processes which are business-driven and enterprise-oriented.
- results in fair, standardized contract vehicles which are performance-based and can easily define the scope of the IT purchase.
- improves the ability of suppliers to do business with the Commonwealth.

2.1 Government dependence upon technology has grown

The Commonwealth is increasingly dependent on data, systems and communications that deliver information and services to its citizens and stakeholders. Information technology is now at the core of state government. This paradigm is a significant shift that has occurred over the past two decades, greatly increasing the Commonwealth's dependence on technology and its technology suppliers.

Technology purchases can be risky and complex. For instance, in an ever- changing IT market, an IT supplier might not last as long as the lifespan of its products or an expensive IT system might fail to provide contractually required functionality without multiple patches and bug fixes. Often, suppliers rush to bring products to market due to competitive or financial pressures. These pressures may create a significant number of design or product errors. IT products might or might not work as advertised and IT service providers might not have the expertise needed or might not provide the level and quality of work required to provide the best technology solutions. These technology risks must be identified and mitigated prior to contract execution, because the failure of an IT system or product could potentially shut down many Commonwealth services or severely hamper its business continuity and efficiency.

The Commonwealth's growing dependence on technology necessitates the use of well-thought-out procurement and business processes by the Commonwealth in the procurement planning, sourcing, contracting and management of IT acquisitions.

2.2 Commonwealth use of technology has changed

IT does more than allow agencies to function more efficiently or to reduce costs through automating business processes. Technology increases both productivity and service levels beyond what improved business processes alone could achieve. IT is a driver of innovation in services and products.

The increase in value of IT has a corresponding increase in risk to the Commonwealth and the services it provides. Commonwealth IT procurement professionals must understand these risks and adapt agency IT objectives and outcomes to match business objectives. IT procurement professionals must undergo very fundamental changes in their roles and responsibilities—from commodity buyers to negotiators and from transactional order placers to strategic business managers.

The technology procurement process encompasses much more than sourcing and buying IT goods and services. It includes— planning; developing requirements; assessing risk factors; preparing the solicitation, evaluation, award and contract documents; approval, formal acceptance and receipt of deliverables; payment; inventory tracking and disposition and post-award supplier performance and compliance management. Regardless of whether the technology product or service required is procured by the agency under its delegated authority, purchased off a statewide contract or sent to VITA for procurement, the workflow is essentially the same. Here are some things that need to be considered when making any technology purchase:

- Identify the technology business needs and the technology products, services or solution that will best fulfill those needs while determining cost containment. What products or services will best fulfill the technical, functional and performance requirements? This may require agency purchasing personnel or VITA personnel to meet with stakeholders to help identify needs, craft requirements and propose available technology solutions.
- Develop specifications that describe the characteristics of the technology product, service or solution being sought. Consideration should be given to product or system suitability and to overall cost effectiveness, in addition to acceptability and price. By their nature, specifications set limits and thereby eliminate or restrict items that are outside the boundaries drawn. Drafting technology specifications requires a balance between including sufficient detail to ensure appropriate responses from suppliers and encouraging, not discouraging, competition. The goal is to invite maximum reasonable competition while procuring the best value technology solution for the Commonwealth.
- Seek bids, proposals or price quotations from a number of potential suppliers, being careful to fulfill minimums established by the Virginia Public Procurement Act and this manual (see Chapter 7, Promoting the Commonwealth's Socio-Economic Initiatives; Chapter 14, Selecting the IT Procurement Method; Chapter 22, IT Competitive Sealed Bidding (IFB); Chapter 23, Two-Step Competitive Sealed Bidding; and, Chapter 24, RFPs and Competitive Negotiation (make links to each chapter).
- Evaluate bids or proposals to determine overall economy for the intended use of the technology product, solution or services. For Invitation for Bid (IFB) procurement method, award should always go to the lowest responsive and responsible bidder. Following the Request for Proposal procurement method, award should go to the Supplier who provides the best value to the Commonwealth and who meets the specifications and requirements of the solicitation, or to the responsive Supplier who offers the most comprehensive, best value technology solution.
- Purchase or contract for the technology product, solution or service in accordance with Virginia Public Procurement Act and this manual.
- Receive the technology product, solution or service and verify that it meets the requirements of the contract and provides the intended technology solution before formal acceptance and payment.

2.3 Critical factors in IT procurement

The Commonwealth can maximize the benefits it receives from technology acquisitions and reduce the risk of supplier and technology failures by using smart sourcing and contract strategies. . Listed below are examples of IT sourcing and contract strategies to mitigate some potential IT procurement difficulties:

Challenge	Impact / risk	IT sourcing principles to employ	IT contract approaches to mitigate
Complexity of business functions, technology and legal issues make procurement long and difficult	major omissions from a business, technical or legal standpoint are anticipated and prevented	use a structured IT acquisition process provides a framework that ensures all areas are part of the screening and selection process	draft a clear, easy-to-use contract that documents the business relationship, and includes only mandatory and specialized IT terms and conditions ensure that the contract should contains the essence of the deal
Industry consolidation/ monopoly suppliers	key products lie with powerful suppliers	use solution-based solicitations that focus on business problems and solutions, not technical specifications	adopt meaningful SLA and business performance commitments and measurements to monitor solution continues to meet business need assign incentives/remedies in the contract
Products and solutions are intangibles	difficult to specify and evaluate products	collaborate in an evaluation process that incorporates all areas needed for successful IT solution: business, technical, legal and financial include subject matter experts (SMEs) in evaluation team who will only evaluate their area(s) of expertise provide contract template is included with solicitation, not prepared after selection incorporate offeror response to contract template is part of the evaluation	use strong warranty language with significant business remedies give significant attention to intellectual property rights and alternatives to ensure the right to use, access, transfer to other Commonwealth entities
Rapid and planned obsolescence	versions out of date new entrants	conduct market research to evaluate market risk evaluation based on value-to-cost ratio	tie contractual commitments to providing solution, not product provide support of version and upgrades for appropriate period of time

		include total life cycle costs in evaluation	
Significant barriers to exit	customer is locked in to products or services	ensure that evaluation and contract negotiation are part of commitment to strong balanced decision-making process anticipate transitions/exit strategies	provide system data, back-up; ownership of work product or perpetual license to work product, including third party products needed to run systems/solutions
Complexity of IT products and services	difficulty to select the best from everyone's perspective	collaborate in a team-based process to ensure all necessary requirements are appropriately evaluated use data-driven process to coalesce many different perspectives	base contract on solutions, not buying of specific product or version include protections against product splitters or bundling
IT must support business function	evaluation criteria focused on business value and needs; not specification-driven process	use solution-based solicitations that focus on business problems and solutions, not technical specifications	include meaningful SLA and performance commitments and measures to monitor solution continues to meet business need assign incentives/remedies in the contract
Solutions are highly interdependent	no accountability for full solution the weakest component will drive your risk profile	take a full supply chain view of solutions evaluate suppliers and components of solution, both independently and collectively	give prime contractor accountability for performance, but also allow Commonwealth to reach through to subcontractors to maintain services

A structured IT sourcing process provides a comprehensive framework to ensure agencies that:

- Omissions from a business, technical or legal standpoint are anticipated and prevented;
- The costs and resources for the IT sourcing process are appropriate and are efficiently deployed;
- The business case in support of the IT procurement is reaffirmed prior to selecting a solution; and
- Across the board and executive buy-in to the new system or technology is measurable as a result of user group involvement throughout the IT sourcing process.

Regardless of the nature of the anticipated IT procurement, its size, cost and complexity, the following core principles of IT sourcing apply:

- Agencies should use a structured solicitation process which incorporates multiple complex domains, e.g., legal, technical, business functionality, financial.
- Sourcing should be a data-driven business process, which incorporates and balances concerns across multiple agency domains.
- Contract formation and negotiation are part of the decision process. It is critical to include an appropriate contract as a part of the negotiation.
- Business needs must be supported in the solicitation requirements and any statement of work. Agencies should focus less on specification-driven solicitations for major systems/solutions and write solicitations that are structured for IT suppliers to offer innovative and cost effective solutions.
- The sourcing evaluation process should include a comprehensive cost analysis that includes the total cost of ownership and all cost components including maintenance and not just the price of software or hardware.
- Long-term issues such as obsolesce, technology replacement and compatibility must be part of the evaluation, negotiation and decision-making process.
- Negotiations must be conducted prior to the selection of a particular IT solution or supplier.
- Intangible rights, software ownership and other critical terms and conditions must be considered in evaluation and negotiation.
- Risk analysis and trade-offs must consider the continuity of operations for the Commonwealth and the solution and/or supplier's potential impact on the Commonwealth's ability to service its citizens without interruption.